

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-18/0091
of 11 April 2018

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

"Gerätedose/One-gang box HWD 90 ", "Geräte-
Verbindungsdose/One-gang box junction HWD 90",
"Electronic-Dose/Electronics box HWD 90",
"Brandschutzdose Unterput/Flush-mounting fire-protection
box", Deckendose/Ceiling box HWD 30" and "Decken-
Verbindungsdose/Ceiling junction box HWD 30"

Product family
to which the construction product belongs

Intumescent products for fire sealing and fire stopping
purposes

Manufacturer

KAISER GmbH & Co. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

Manufacturing plant

KAISER GmbH & Co. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

This European Technical Assessment
contains

8 pages including 3 annexes which form an integral part
of this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

EAD 350005-00-1104, May 2015

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Specific part

1 Technical description of the product

Object of this European Technical Assessment (ETA) are the intumescent construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30".

In case of fire, exposed to high temperatures, the intumescent product expands and generates foam. This foam seals joints and gaps, closes voids and openings. Thus, the foam restricts the passage and the spread of heat, smoke, flames or any combination of these.

The intumescent construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30" are pre-formed spray cast elements (two-components injection moulding) consisting of two layers interconnected intrinsically tied - one layer made of Polypropylene (PP) and one layer made of an intumescent material¹, which consists of intumescent substances and an adequate binder.

The pre-formed spray cast elements "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box" consist of a white pigmented Polypropylene¹ hollow element enclosed intrinsically tied by an anthracite shell of intumescent material.

The pre-formed spray cast elements "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30" consist of a dark grey pigmented Polypropylene¹ hollow element enclosed intrinsically tied by an anthracite shell of intumescent material.

The technical characteristics relevant for fire sealing and fire stopping effects of the construction products "Gerätedose HWD 90", "Geräte-Verbindungsdose HWD 90", "Electronic-Dose HWD 90", "Brandschutzdose Unterputz", "Deckendose HWD 30" und "Decken-Verbindungsdose HWD 30" are given in Annex 1.

All the described pre-formed elements are produced in standard shapes and dimensions as given in Annex 2 and 3.

2 Specification of the intended use in accordance with the applicable European Assessment Document EAD Nr. 350005-00-1104

The construction products "Gerätedose HWD 90", "Geräte-Verbindungsdose HWD 90", "Electronic-Dose HWD 90", "Brandschutzdose Unterputz", "Deckendose HWD 30" und "Decken-Verbindungsdose HWD 30" are assessed on the basis of EAD 350005-00-1104² as intumescent products for fire sealing and fire stopping purposes without defined final intended use (IU 1).

The construction products are intended to be used as an essential component for fire protection of walls, ceilings and special constructions which need to meet requirements concerning the safety in case of fire.

In case of fire, the product delays the heat transfer through fire resistant construction products and construction elements by expanding under the impact of high temperatures and thus restricting the spread of fire.

¹ Chemische Zusammensetzung beim DIBt hinterlegt
² Official Journal of the EU N° C 378/02 of 13/11/2015

The performance given in section 3 is only valid, if the construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30" in use consider the instructions and the conditions stated in section 3.3.

The verification and assessment methods on which this European Technical Assessment is based, lead to the assumption of working life of the intumescent construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30" of at least 10 years in final use.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

| Products | Performance |
|--|---|
| "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/ One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90", "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30", "Decken-Verbindungsdose/Ceiling junction box HWD 30" | class E in accordance with EN 13501-1 ³ |

3.1.2 Resistance to fire

The performance "resistance to fire" shall be determined separately for every final use and shall be classified, if required for the construction element concerned.

3.2 Hygiene, health and the environment (BWR 3)

| Essential characteristic | Performance |
|---------------------------------|--------------------------------------|
| Content of dangerous substances | No dangerous substances ⁴ |

The detailed chemical composition of the intumescent construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90", "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Verbindungsdose/Ceiling junction box HWD 30" was assessed by DIBt and is deposited with DIBt.

3.3 General Aspects

Durability testing shall be an integral part of assessing the basic works and performance requirements. The following specific provisions for use shall be complied with to ensure the durability of the performance.

The testing and the assessment of the relevant product performance were carried out for environmental conditions of type Z₂ – product intended for use at dry internal conditions without frost (relative humidity between 50 % and 85 % RF and temperatures between +5 °C and

³ DIN EN 13501-1 Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten; Teil 1 und A1:2009
 Klassifizierung mit den Ergebnissen aus den Prüfungen zum Brandverhalten von Bauprodukten
⁴ In accordance with the Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 (published in the Official Journal of the EU N° L 353 of 31/12/2008, p 1)

English translation prepared by DIBt

+35 °C (± 5 °C) - in accordance with EOTA Technical Report 024 (EOTA TR 024)⁵, section 4.2.7.

Result:

The intumescent construction products "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90" (inclusive cover and divider), "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" and "Decken-Verbindungsdose/Ceiling junction box HWD 30" can be used permanently under use conditions of type Z₂ (dry internal use without frost) without having to fear essential changes in the relevant fire sealing and fire stopping properties and the resulting performance.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with the European Assessment Document EAD No 350005-00-1104 the Decision of the commission N° 1999/454/EC of 22 June 1999 (OJ of the EU L 178 of 14 July 1999, p 42), amended by EC Decision 2001/596/EC of 8 January 2001 (OJ of the EU L 209 of 2 August 2001, p 33) is the legal basis for the determination of the AVCP system.

So system 1 applies for the assessment and verification of constancy of performance (AVCP). (See Annex V in conjunction with Article 65 (2) of the Regulation (EU) N° 305/2011) and the following table:

| Product | Intended use | characteristic | System |
|---|--|---|--------|
| "Gerätedose/One-gang box HWD 90", "Geräte-Verbindungsdose/One-gang junction box HWD 90", "Electronic-Dose/Electronics box HWD 90", "Brandschutzdose Unterputz/Flush-moulding fire-protection box", "Deckendose/Ceiling box HWD 30" "Verbindungsdose/Ceiling junction box HWD 30" | Components effective in view of safety in case of fire (BWR 2) used in construction products, construction elements, kits and special assemblies | reaction to fire, properties relevant for the fire sealing and fire stopping effect | 1 |

5 Technical details necessary for the implementation of the procedure for assessment and verification of constancy of performance (AVCP) system 1, as provided for in the applicable European Assessment Document

The technical details necessary for the implementation of the system for assessment and verification of constancy of performance are laid down in the control plan (confidential part of this ETA) deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 11 April 2018 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe
Head of the Department

beglaubigt:
Dr.-Ing. Dierke

⁵ EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and products; edition as amended July 2009

ANNEX 1

CHARACTERISTICS RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECTS OF THE CONSTRUCTION PRODUCTS

- "Gerätedose/One-gang box HWD 90",
"Geräte-Verbindungsdose/One-gang junction box HWD 90",
"Electronic-Dose/Electronics box HWD 90",
"Brandschutzdose Unterputz/Flush-moulding fire-protection box",
"Deckendose/Ceiling box HWD 30" and
"Decken-Verbindungsdose/Ceiling junction box HWD 30"

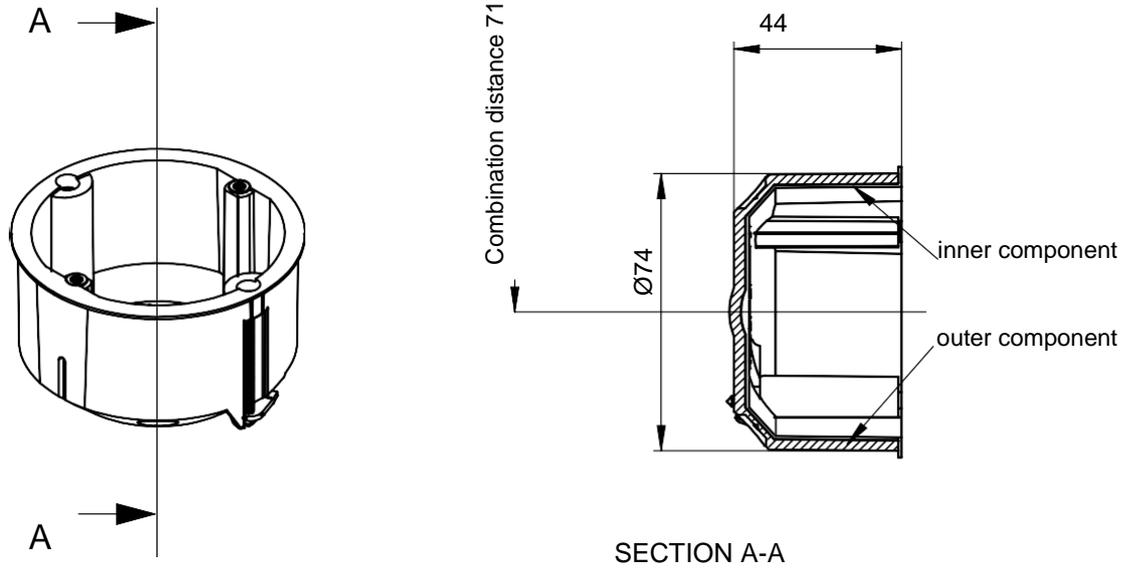
| Characteristic | Test method ⁶ | Range of determined values and tolerances |
|--------------------------------------|---|---|
| thickness and tolerance in thickness | EOTA TR 024, cl. 3.1.2 | 3,7 mm +0,1 mm/ -0,3 mm |
| Expansion ratio | EOTA TR 024, cl. 3.1.11 tested at 550 °C for 30 minutes with a top-load | 3,5 to 12,0 |
| Expansion pressure | EOTA TR 024, cl. 3.1.12 tested at 300 °C, method A | ≤ 0.25 N/mm ² |

⁶ Details of the test method are deposited with DIBt

ANNEX 2

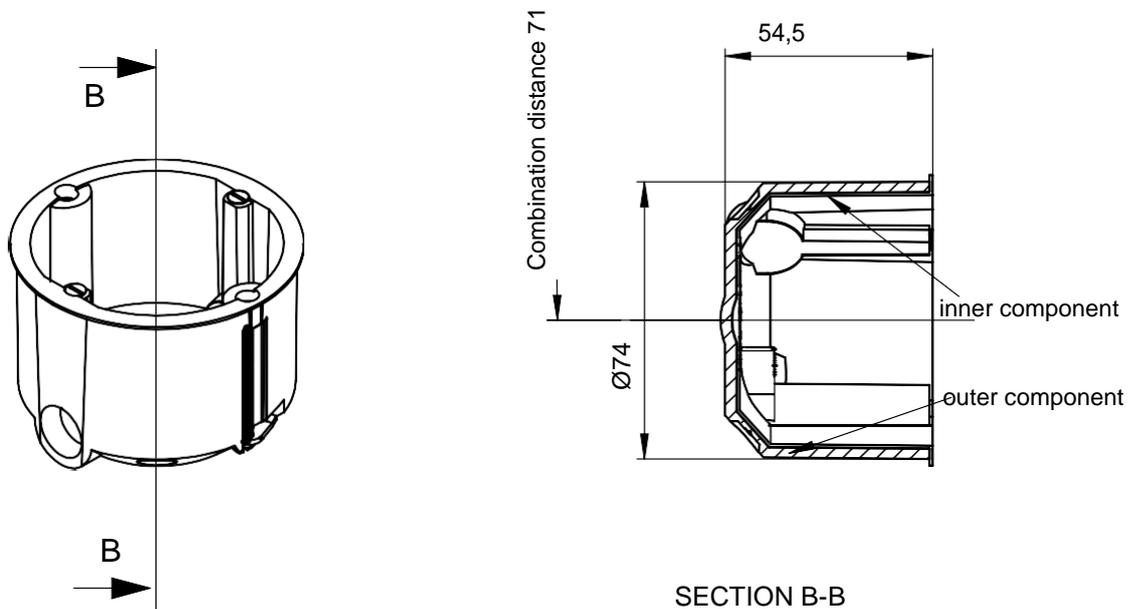
Standard shape and dimensions (measures in mm)

"Gerätedose/One-gang box HWD 90" article No.9463-01, "Deckendose/Ceiling box HWD 30" article No 9463-50



"Geräte-Verbindungsdose/One-gang junction box HWD90", article No 9464-01

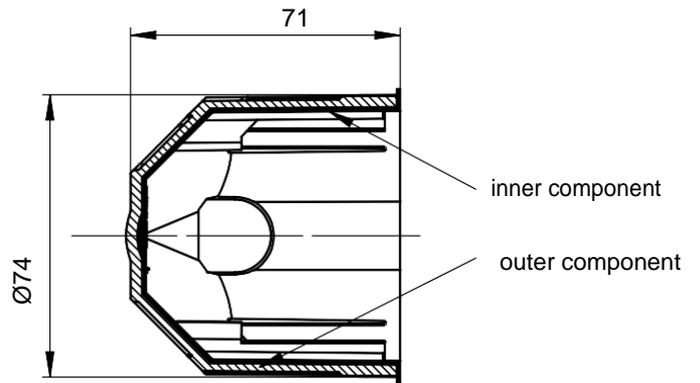
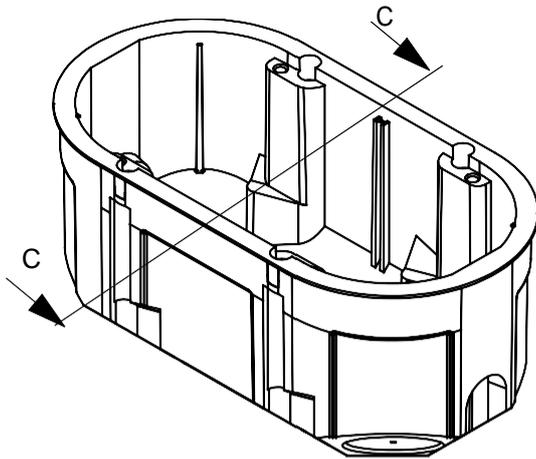
"Decken-Verbindungsdose/Ceiling junction box HWD 30", article No 9464-50



ANNEX 3

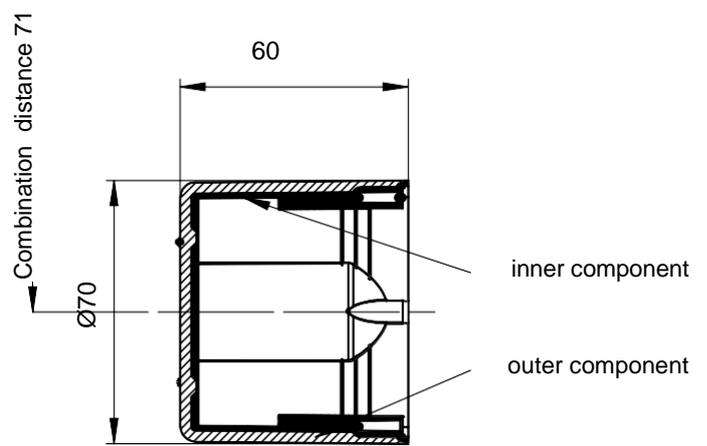
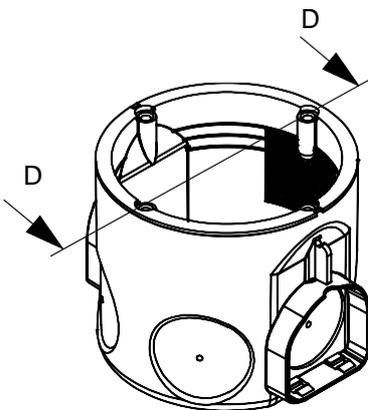
Standard shape and dimensions (measures in mm)

"Electronic-Dose/Electronics box HWD 90" article No 9462-94



SECTION C-C

"Brandschutzdose Unterputz/Flush-moulding fire-protection box" article No 1564-01



SECTION D-D